

LC1D50ABD

TeSys D contactor - 3P(3 NO) - AC-3 - ≤ 440 V 50 A - 24 V DC standard coil



Main

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|---|--|
| Range | TeSys |
| Product name | TeSys D |
| Product or component type | Contacteur |
| Device short name | LC1D |
| Contacteur application | Motor control Resistive load |
| Utilisation category | AC-1 AC-3 AC-4 |
| Poles description | 3P |
| Pole contact composition | 3 NO |
| [Ue] rated operational voltage | ≤ 690 V AC 25...400 Hz for power circuit ≤ 300 V DC for power circuit |
| [Ie] rated operational current | 50 A (≤ 60 °C) at ≤ 440 V AC AC-3 for power circuit 80 A (≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit |
| Motor power kW | 22 kW at 380...400 V AC 50/60 Hz AC-3 25 kW at 415 V AC 50/60 Hz AC-3 30 kW at 440 V AC 50/60 Hz AC-3 30 kW at 500 V AC 50/60 Hz AC-3 33 kW at 660...690 V AC 50/60 Hz AC-3 15 kW at 220...230 V AC 50/60 Hz AC-3 11 kW at 400 V AC 50/60 Hz AC-4 |
| Motor power hp | 3 hp at 115 V AC 50/60 Hz for 1 phase motors 7.5 hp at 230/240 V AC 50/60 Hz for 1 phase motors 15 hp at 200/208 V AC 50/60 Hz for 3 phases motors 15 hp at 230/240 V AC 50/60 Hz for 3 phases motors 40 hp at 460/480 V AC 50/60 Hz for 3 phases motors 40 hp at 575/600 V AC 50/60 Hz for 3 phases motors |
| Control circuit type | DC standard |
| [Uc] control circuit voltage | 24 V DC |
| Auxiliary contact composition | 1 NO + 1 NC |
| [Uimp] rated impulse withstand voltage | Conforming to IEC 60947 |
| Overtoltage category | III |
| [Ith] conventional free air thermal current | 80 A at ≤ 60 °C for power circuit 10 A at ≤ 60 °C for signalling circuit |
| Irms rated making capacity | 900 A at 440 V for power circuit conforming to IEC 60947 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 |
| Rated breaking capacity | 900 A at 440 V for power circuit conforming to IEC 60947 |
| [Icw] rated short-time withstand current | 100 A 1 s signalling circuit 120 A 500 ms signalling circuit 140 A 100 ms signalling circuit 400 A ≤ 40 °C 10 s power circuit 810 A ≤ 40 °C 1 s power circuit 84 A ≤ 40 °C 10 min power circuit |

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| | 208 A ≤ 40 °C 1 min power circuit |
| Associated fuse rating | 100 A gG at ≤ 690 V coordination type 1 for power circuit 100 A gG at ≤ 690 V coordination type 2 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1 |
| Average impedance | 1.5 mOhm at 50 Hz - Ith 80 A for power circuit |
| [Ui] rated insulation voltage | 600 V for power circuit certifications CSA 600 V for power circuit certifications UL 690 V for power circuit conforming to IEC 60947-4-1 690 V for signalling circuit conforming to IEC 60947-1 600 V for signalling circuit certifications CSA 600 V for signalling circuit certifications UL |
| Electrical durability | 1.45 Mcycles 50 A AC-3 at Ue ≤ 440 V 1.1 Mcycles 80 A AC-1 at Ue ≤ 440 V |
| Power dissipation per pole | 3.7 W AC-3 9.6 W AC-1 |
| Protective cover | With |
| Mounting support | Plate Rail |
| Standards | UL 508 CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 |
| Product certifications | BV CCC CSA DNV GL GOST LROS (Lloyds register of shipping) RINA UL |
| Connections - terminals | Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm ² - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: solid - without cable end Power circuit : screw connection 2 cable(s) 1...25 mm ² - cable stiffness: flexible - with cable end Power circuit : screw connection 2 cable(s) 1...25 mm ² - cable stiffness: solid - without cable end Power circuit : screw connection 2 cable(s) 1...25 mm ² - cable stiffness: flexible - without cable end Power circuit : screw connection 1 cable(s) 1...35 mm ² - cable stiffness: solid - without cable end Power circuit : screw connection 1 cable(s) 1...35 mm ² - cable stiffness: flexible - without cable end Power circuit : screw connection 1 cable(s) 1...35 mm ² - cable stiffness: flexible - with cable end |
| Tightening torque | Control circuit : 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit : 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit : 8 N.m - on EverLink BTR screw connectors - cable 25...35 mm ² hexagonal 4 mm Power circuit : 5 N.m - on EverLink BTR screw connectors - cable 1...25 mm ² hexagonal 4 mm |

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| Operating time | 16...24 ms opening 42.5...57.5 ms closing |
| Safety reliability level | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 2000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 |
| Mechanical durability | 10 Mcycles |
| Operating rate | 3600 cyc/h at <= 60 °C |

Complementary

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| Coil technology | Built-in bidirectional peak limiting diode suppressor |
| Control circuit voltage limits | 0.1...0.3 Uc drop-out at 60 °C, DC 0.75...1.25 Uc operational at 60 °C, DC |
| Time constant | 34 ms |
| Inrush power in W | 19 W at 20 °C |
| Hold-in power consumption in W | 7.4 W at 20 °C |
| Auxiliary contacts type | Type mechanically linked (1 NO + 1 NC) conforming to IEC 60947-5-1 Type mirror contact (1 NC) conforming to IEC 60947-4-1 |
| Signalling circuit frequency | 25...400 Hz |
| Minimum switching current | 5 mA for signalling circuit |
| Minimum switching voltage | 17 V for signalling circuit |
| Non-overlap time | 1.5 ms on de-energisation (between NC and NO contact) 1.5 ms on energisation (between NC and NO contact) |
| Insulation resistance | > 10 MOhm for signalling circuit |

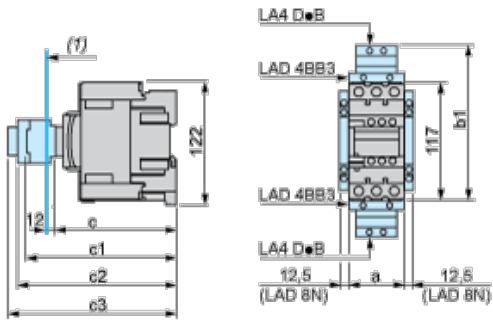
Environment

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| IP degree of protection | IP20 front face conforming to IEC 60529 |
| protective treatment | TH conforming to IEC 60068-2-30 |
| pollution degree | 3 |
| ambient air temperature for operation | -5...60 °C |
| ambient air temperature for storage | -60...80 °C |
| permissible ambient air temperature around the device | -40...70 °C at Uc |
| operating altitude | 3000 m without derating in temperature |
| fire resistance | 850 °C conforming to IEC 60695-2-1 |
| flame retardance | V1 conforming to UL 94 |
| mechanical robustness | Vibrations contactor open 2 Gn, 5...300 Hz Vibrations contactor closed 4 Gn, 5...300 Hz Shocks contactor open 10 Gn for 11 ms Shocks contactor closed 15 Gn for 11 ms |
| height | 122 mm |
| width | 55 mm |
| depth | 120 mm |
| product weight | 0.93 kg |

Offer Sustainability

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|----------------------------------|---|
| Sustainable offer status | Green Premium product |
| RoHS (date code: YYWW) | Compliant - since 0001 - Schneider Electric declaration of conformity |
| REACH | Reference not containing SVHC above the threshold |
| Product environmental profile | Available |
| Product end of life instructions | Available |

Dimensions



(1) Minimum electrical clearance

| LC1 | | D40A...D65A |
|-----|------------------------------------|-------------|
| a | | 55 |
| b1 | with LAD 4BB3 | 136 |
| | with LA4 DF, DT | 157 |
| c | without cover or add-on blocks | 118 |
| | with cover, without add-on blocks | 120 |
| c1 | with LAD N (1 contact) | – |
| | with LAD N or C (2 or 4 contacts) | 150 |
| c2 | with LA6 DK10 | 163 |
| c3 | with LAD T, R, S | 171 |
| | with LAD T, R, S and sealing cover | 175 |

Wiring

